

**Fish and Wildlife Coordination Act
Migratory Bird Treaty Act
COMPLIANCE**

**PROPOSED SOUTH INTERCEPTOR
DITCH (SID) PROJECT**

FINAL HABITAT SURVEY REPORT

**DEPARTMENT OF ENERGY
ROCKY FLATS OFFICE
GOLDEN, CO**

OCTOBER 1991

ADMIN RECORD

A-OU01-000760

TABLE OF CONTENTS

1	INTRODUCTION	1
2	DESCRIPTION	1
2 1	PROJECT DESCRIPTION	1
2 2	RESOURCE & HABITAT DESCRIPTION	2
3	SURVEY	2
3 1	DESIGN	2
3 2	ON SITE INSPECTION	2
3 3	INTERVIEWS WITH EXPERTS	3
3 4	LITERATURE REVIEW	3
4	RESULTS	3
4 1	PRESENCE OF MIGRATORY SPECIES	3
4 2	PRESENCE OF CRITICAL HABITAT	4
5	ANALYSIS OF POTENTIAL IMPACTS	4
5 1	WATER RELATED ACTIVITIES	4
5 2	WILDLIFE BENEFITS / LOSSES	4
5 3	CONSERVATION MEASURES	5
6	DETERMINATION	5

SID PROJECT / FINAL HABITAT SURVEY REPORT

1 0 INTRODUCTION

Correspondence between the Department of Energy Rocky Flats Office (DOE RFO) and the U S Fish & Wildlife Service (USFWS) (dated 18 September 1991) identified several proposed remedial action and operational projects at RFP which may require official consultation with USFWS and the Colorado Division of Wildlife (CDOW) regarding potential impacts to resources protected under the Fish and Wildlife Coordination Act (FWCA) [16 U S C 661 666c] and the USFWS per the Migratory Bird Treaty Act (MBTA) [16 U S C 703 712]. Internal DOE RFO guidance further emphasized the need to insure compliance with applicable biological regulations before proceeding with the proposed South Interceptor Ditch (SID) project. On 19 September 1991 the DOE RFO met with USFWS Golden CO to discuss Rocky Flats Plant (RFP) compliance with the FWCA and MBTA with respect to water related projects and critical habitat for migratory bird species.

At the meeting it was determined that consultation would be required on the proposed project. To limit impacts to SID construction schedules DOE RFO requested that the consultation process be expedited. To facilitate expeditious consultation DOE RFO and USFWS agreed that DOE RFO would prepare a report summarizing ecological survey data pertinent to migratory bird species collected during (a) performance of the 881 Hillside Operable Unit 1 (OU1) Environmental Evaluation (EE) and (b) special surveys on the SID project site. USFWS visited the SID site the visits took place on 26 September 1991 and 17 October 1991.

USFWS agreed to review the report to determine whether sufficient information had been presented therein to allow assessment of potential impacts to migratory bird species or their habitats in or near the SID project.

Work on the SID Project is currently on hold pending development of information adequate to meet the consultation requirements of the FWCA MBTA and the Endangered Species Act (ESA) (16 U S C 1531 *et seq*).

2 0 DESCRIPTION

2 1 Project Description

The purpose of the SID is to prevent potentially contaminated stormwater runoff from the south side of the developed RFP area from reaching Woman Creek and thereby flowing offsite. The SID intercepts this runoff and carries it to Pond C 2 for storage sampling and analysis prior to discharge. The SID has been recently evaluated as being hydraulically unable to carry its design stormwater flows i.e. a 100 year 6 hour peak flow of 210 cfs.

The proposed near term action is the maintenance burning of heavy growths of vegetation primarily linear strands of cattails (approximately 0.4 hectares (approximately 0.9 acres)) in the SID. The SID is approximately 2000 meters long covers a total area of approximately 1.8 hectares (approximately 4.5 acres) and is located on the south side of RFP immediately north of Woman Creek. The need for this action is based on a lack of regular maintenance of the ditch which has resulted in siltation in culverts overgrowth of vegetation in the channel and sloughing of ditch banks. This deterioration has significantly reduced the flow channel width and set the stage for possible overtopping during a 100 year or even smaller event. Burning the ditch vegetation will provide an immediate increase in the present carrying capacity prior to heavy precipitation events that may occur during the spring of 1992.

SID PROJECT / FINAL HABITAT SURVEY REPORT

Proposed future maintenance activities will involve (a) excavation and re grading of approximately 2000 meters of the SID to remove accumulated sediment (b) reconstruction of existing rock control structures and placement of additional rip-rap as required (c) removal and replacement of about five culverts and (d) construction of new concrete inlet structures within the SID. The location for the proposed project is shown in Figure 1.

2.2 Resource and Habitat Description

Migratory bird species of concern include hawks, owls, eagles, peregrine falcons, ducks, geese, and passerines (songbirds). Habitat types in the SID include a total of approximately 1.8 hectares (approximately 4.5 acres) of wetlands: wet meadow, short marsh, and tall marsh. Occasionally there are open pools of standing water in some sections of the channel, but such pools are an exception rather than the rule.

3.0 SURVEY

3.1 Design

Methodologies used for ecological surveys at RFP are specified in the EG&G Environmental Management Department Standard Operating Procedures (SOP) Volume 5.0, Ecology. These SOPs have been approved for use on CERCLA/RCRA investigations by EPA, CDH, USFWS, and the Colorado Division of Wildlife (CDOW). Each Ecology SOP specifies a Master's Degree and two years of field experience as the minimum qualifications required of personnel conducting the surveys.

3.2 On Site Inspection

RFP ecology field programs which began in spring 1991 include the (a) Threatened and Endangered Species Evaluation Report, Rocky Flats Plant Site; (b) Baseline Wildlife/Vegetation Studies; (c) OU1 environmental evaluation (EE); (d) OU2 EE; (e) OU5 EE; and (f) surveys specific to the SID project site. In the aggregate, these programs cover a survey area bounded on the west by a line 0.3 mile east of Highway 93, on the east by Indiana Street, on the north by Highway 128, and on the south by a line 0.5 to 1.0 miles north of Highway 72. Ecology surveys conducted within OU1, OU2, OU5, and OU fringe areas have more densely spaced sampling locations than do surveys conducted in OU reference and baseline areas.

The following types of ecological surveys, which relate to migratory bird species, were conducted throughout 1991 at or near the SID project site:

Emlen Bird Transects One 1000 meter bird transect (BA01A) was designed specifically to sample bird populations in wetland types along the SID between Pond C 2 and SW36 (near the west end of the SID). Data have been compiled from this transect five times since May. Bird numbers and perpendicular distances from the centerline of the ditch were recorded in order to compute bird densities (number per hectare). An additional eleven transects totalling 3300 meters have been configured within adjacent habitats along Woman Creek and the 881 Hillside; each has been sampled five times since May. Each sampling session requires ten minutes to more than an hour to complete, depending upon the transect length and the number of birds present.

Vegetation Transects Vegetation sampling has been conducted in conjunction with the aforementioned bird and mammal transects within the ditch environment. Data have been compiled

SID PROJECT / FINAL HABITAT SURVEY REPORT

on vegetation cover density composition richness and production from six 50 meter point intercept cover transects six 2x50 meter belt transects and from 60 0 25 m² production plots The vegetation in the ditch has been characterized and quantified using these techniques About 80 person hours have been devoted to this activity

Migratory Species Surveys (General)

- Δ Raptor Surveys Intensive searches for habitat appropriate for raptor nests were conducted through the late winter spring and early summer All observations of raptors have been recorded in a standardized format To-date these activities have consumed about 70 person hours

3 3 Interviews with Experts

Discussions have been conducted with Dr Fred Harrington (Ebasco Services) regarding the occurrence of raptors on or near the project site

3 4 Literature Review

The Threatened and Endangered Species Evaluation Report, Rocky Flats Plant Site (April 4 1991) prepared by EG&G Rocky Flats Inc provides a broad picture of potential SOC species at RFP and contains a literature review for those species which include migratory bird species Literature searches have been performed for all of the additional species including migratory bird species on the USFWS list and this information is included as Attachment 2 in Identification and Reporting of Threatened and Endangered and Special Concern Species, EMD Administrative Procedures Manual (3 21000 ADM) Procedure NEPA 12 (15 October 1991 draft)

4 0 RESULTS

These results represent ecological survey data collected between late winter 1991 and 11 October 1991 during the aforementioned surveys They also include all documented findings of migratory bird species at RFP that might be impacted by the proposed SID Project

4 1 Presence of Migratory Bird Species

Bald Eagle Individuals of this species (*Haliaeetus leucocephalus*) a federal and state endangered species have been observed soaring over the developed area and flying over the northeast portion of the buffer zone None have been observed to roost or hunt on RFP and none have been observed in proximity to the SID

Peregrine Falcon Two individuals of this species (*Falco peregrinus*) a federal and state endangered species were observed at RFP in early fall One was flying from west to east near the west gate The other was observed perched on a powerline near Pond B 5 and made an attempt to capture a killdeer inbound to Pond B 5 However no nesting or roosting activities have been observed and none have been observed in proximity to the SID

Ferruginous Hawk This species (*Buteo regalis*) a federal Category 1 species was observed adjacent to the SID in winter spring and early summer A juvenile male was resident in the vicinity of

SID PROJECT / FINAL HABITAT SURVEY REPORT

the ditch for a six week period in early late spring and early summer nesting was not documented. This individual was observed hunting primarily in the riparian zone of Woman Creek and along the 881 Hillside directly above the SID. Most observations of this species have been in association with prairie dog colonies southeast of RFP.

Swainson's Hawk A pair of this species (*Buteo swainsonii*) a federal Category 3 species attempted to nest in early June in a cottonwood about 1000 meters southeast of the SID. The nest was abandoned for unknown reasons in early July. During this period members of the pair were not observed hunting in the vicinity of the SID although other observations of this species have been documented infrequently but widely on the RFP site.

Passerines The following species were observed nesting on the 881 Hillside located directly above the central reach of the SID: Oriole, Western Kingbird, Mourning Dove, Vesper Sparrow, Meadowlark, American Robin, Killdeer, Mallard Duck, Yellow Warbler, Red wing, Blackbird, Kestrel, Hawk. The following bird species were found using the area as a foraging ground: Say's Phoebe, American Gold Finch, Common House Finch. This list serves to indicate the high diversity of migratory passerines utilizing the habitats along the 881 Hillside near the SID project site. Population density values will be calculated as part of the OU1 EE however these numbers are not yet available.

4.2 Presence of Critical Habitat

The SID is a man made structure that through lack of maintenance has become a jurisdictional wetland and a suitable although potentially contaminated habitat for a variety of migratory bird species. Some species (ducks and Red wing Blackbirds) have been observed nesting and foraging in the SID. However similar habitat exists in abundance elsewhere on RFP and this particular 1.8 hectares of wetland habitat should not be considered as critical to migratory bird species.

5.0 ANALYSIS OF POTENTIAL IMPACTS

5.1 Water Related Activities

While water related the SID Project should be excluded from consideration under FWCA due to its being (a) not an intentional impoundment and (b) a land management project being performed by DOE on land under its jurisdiction.

There is the possibility for increased sedimentation into Woman Creek from excavation activities at the SID Project. Due to the shallow nature of the creek even a small increase in sedimentation levels could greatly affect the macrobenthos and fish populations in the creek. Seven species of fish have been identified in Woman Creek: Stoneroller, Creek Chub, Golden Shiner, Fathead Minnow, Largemouth Bass, Green Sunfish, and the Western White Sucker. Consultation with USFWS under FWCA may be required if it can be shown (either empirically or by calculation) that excavation of the SID would cause reduced (as a result of sedimentation) flows in Woman Creek thereby constituting a modification to a stream.

5.2 Wildlife Benefits/Losses

The proposed maintenance burn is expected to have little long term direct impact on migratory bird populations as the vegetation should return during the 1992 growing season.

Excavation of the channel and rebuilding of control structures will result in the total destruction of all

SID PROJECT / FINAL HABITAT SURVEY REPORT

habitats along the length of the SID channel. Because similar habitat is available in the immediate vicinity, loss of this particular habitat is not anticipated to have any long term direct impact on the migratory bird species that currently utilize it.

Although the 1.8 hectares of wetland habitat in the SID do not represent a substantial portion of the total wetland habitat present at RFP, they comprise none the less a man made jurisdictional wetland as defined in 33 CFR 328.3(b) and 40 CFR 230.3(t). Permission was received on 18 October 1991 from the Corps of Engineers (COE) for the maintenance burn which will take place as a maintenance activity under 10 CFR 102.2.5(g). However, any proposed long term or permanent impacts (such as excavation) to this wetland habitat may have to be mitigated in conformance with applicable regulations and USFWS guidance.

In addition, disturbance of the land around the SID due to excavation activities could lead to the invasion of opportunistic plant species that are less desirable as forage for small mammal and bird populations.

5.3 Conservation Measures

Both the potential for increased sedimentation into Woman Creek and invasion of disturbed land by opportunistic plant species can be mitigated through careful control and management of construction activities. It would also be prudent to develop a contingency mitigation plan for offsetting habitat losses before proceeding with any excavation activities.

6.0 DETERMINATION

Based on the data currently available, DOE RFO has determined that the maintenance burn of the SID proposed to occur before the end of October will have no adverse impacts on migratory bird and other species in or near the project.

Based on the data currently available, DOE RFO has determined that any excavation or rebuilding of the SID could have adverse impacts on migratory bird species or other species in or near the project. Before proceeding with any excavation activities, DOE RFO proposes to (a) develop a plan that will minimize the possibility of increasing sediment loads in Woman Creek, (b) develop a plan that will minimize impacts to the vegetation on either side of the SID, and (c) negotiate a mitigation strategy with USFWS to offset the loss of this habitat.¹

1) Prepared by EG&G Rocky Flats EM/NEPA Division (303) 273 6188. Report originally compiled and written by Dr. Bruce K. Hope, reviewed by Mr. Scott McGlochlin. Information on the types and results of surveys conducted were transcribed from a report (Letter RFEV3 EDEN EGRF M-015) prepared by Dr. D. Jean Tate (Ebasco Services) and Dr. Fred Harrington (Ebasco Services) under EM/NEPA Division Contract BA64980EB.

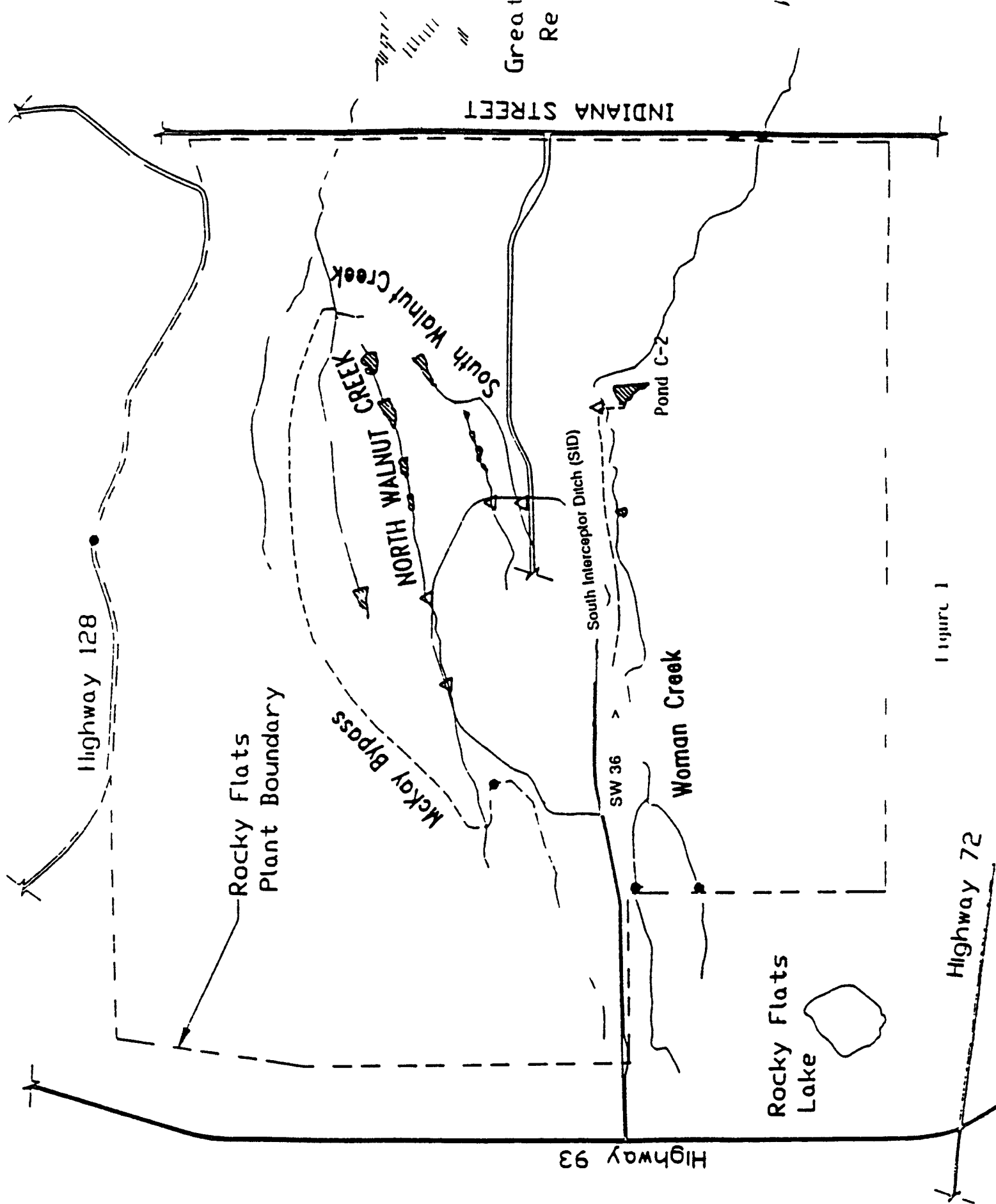


Figure 1